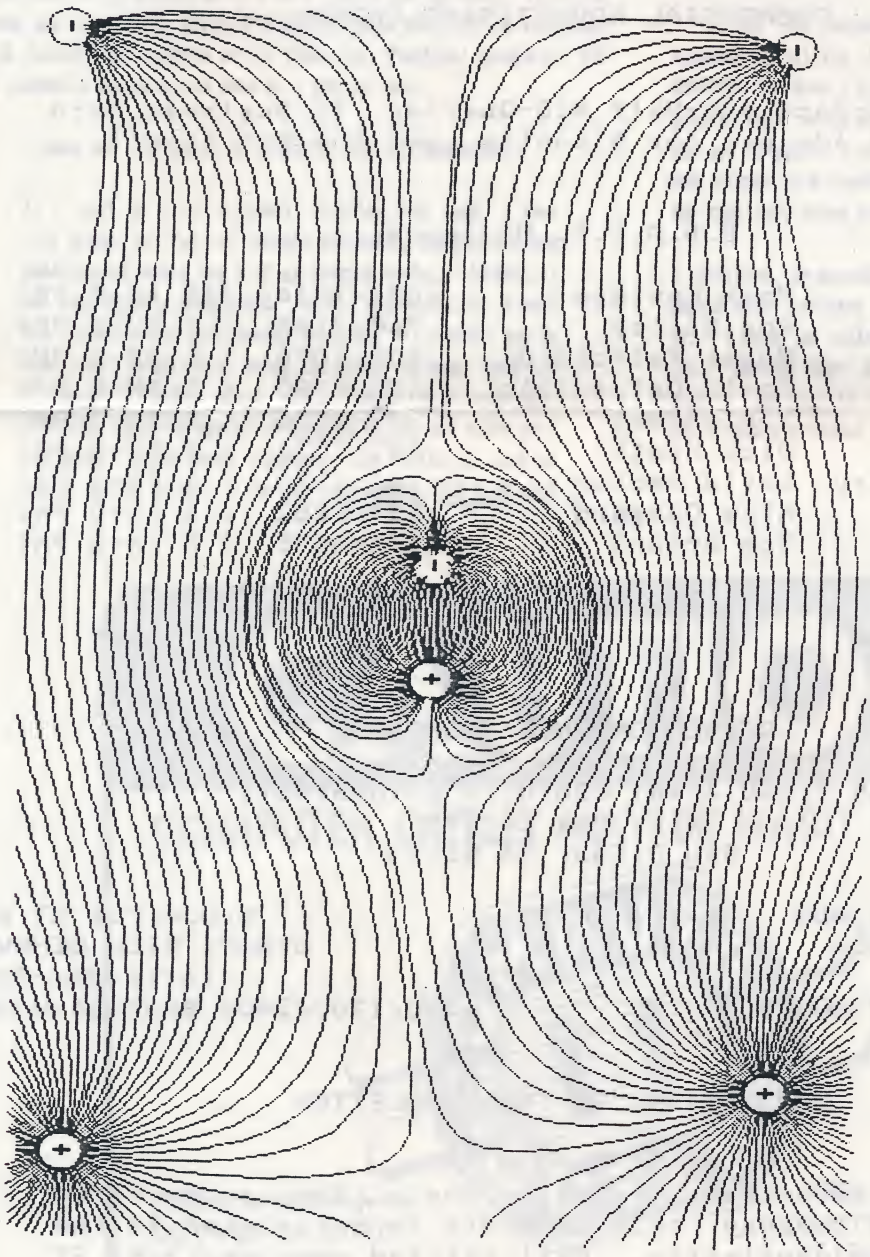
The I/O Connector

ACE

The newsletter of the San Diego Atari Computer Enthusiasts

January 88



EYE OF THE JOVIAN STORM

G. SHUMWAY-1967

THE SAN DIEGO ATARI COMPUTER ENTHUSIASTS

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SUBMISSIONS TO THE NEWSLETTER

The editor welcomes all submissions. They must arrive by the 2nd Tuesday of the month to be printed in the next month's newsletter. Mail printed copy or 3.5" ST format disks with return postage to the club P.O. Box, or upload to one of the S.D.A.C.E. bulletin boards.

THE PURSUIT OF HAPPINESS

by Tom Briant

Hello, I'm Tom Briant, the new newsletter editor. Before I introduce myself, I want to thank Peter Payne for his help in getting me started. His technical assistance and reminders of "Time to start production, Tom," got me going in enough time to avoid a frenzied rush. I also want to thank Rick DeHaven for his technical assistance with Ready, Set, Go!

Now some personal information. I bought a 1040 ST in October 1986 to learn how to run spreadsheets. I know very little about the 8-bit Ataris. I only have a monochrome monitor, which looks better than most IBM displays; but I wish I could use my color TV to run games and view those great SPECTRUM pictures shown at the meetings. Look forward to a review of The Video Key, Practical Solution's RGB to composite converter,as soon as I can get one!

I have set some goals as editor of the I/O Connector:

1. I want to print original articles from you. I know this group has lots of talent; otherwise, Control.ACC and Emulator.ACC would hog 4 of my desktop slots. Instead, I use John Ogawa's SCHIZO.ACC, worth every dollar I sent him. Write about programming triumphs, write about how to draw cats. Write about using the Atari in your work and at school. Write about making music with your MIDI software. Write a review of Dungeon Master and other game software. Write about enhancing your software, such as how to switch between Elite and Condensed in 1ST WORD with a mouse click. I know a way, but you probably know a better one. Write it up! I'll edit for brevity and awkward grammar; but if you submit a page of camera-ready work, I'll run it.

2. If you feel you express yourself better graphically than verbally; then create some artwork that looks good in monochrome and send it in. I can use PIC SWITCH to print out any ST paint format, MACPAINT from you Magic Sac enthusiasts, and these 8-bit formats: Graphics 8 & 9 screen dump, Koala/MicroIllustrator, and MicroPainter. I want CAD drawings,too; but I'll need hard copy.

You say you couldn't draw a recognizable stickman? Use a screenshot utility to capture an interesting screen. Use GRAFTOOL to draw a graph of an esoteric math equation. Write a program that draws wild-looking fractals. Download a picture and use a paint program to enhance it. Andy Warhol gained fame and fortune from Campbells soup cans. Get your 15 minutes in the spotlight using your Atari!

3. Articles on assembling your own peripherals. The ST BBS has buzzed with messages about hooking up a 5.25" drive up to the ST. I have an article on converting a CX-22 trackball for ST use. Kay-Bee Toys has them for $10.00. Pick one up cheap and pick up the article at the ST meeting on January 17th. (I won't run hardware articles unless I see them work first.)

WORD PERFECT PRINTER DRIVER INSTALLATION TIPS FOR FLOPPY DISK SYSTEMS

by Tom Briant

The Word Perfect program prefers to find all 7 installation files in the same directory on the same disk. With all files together, Word Perfect builds the 3 printer driver files:SPRINT.PRT, SFEED.PRT, and SFONT.PRT, automatically. To do a nice, clean printer installation, though; you need at least 800K of disk space,e.g., a hard disk partition or an extended format double-sided disk. Systems with only single-sided drives require swappping of disks.

Now to the meat of the matter. You need these 7 files:

1.	WP.PRG	186,206 Bytes
2.	WP.RSC	43,266 Bytes
3.	SYS__.WP	2,062 Bytes
4.	WP_START.PRG	3,290 Bytes
	TOTAL	234,824 Bytes
5.	PRINT.PRT	180,574 Bytes
6.	FEED.PRT	4,506 Bytes
	TOTAL	185,080 Bytes
7.	FONT.PRT	314,326 Bytes
	GRAND TOTAL	732,226 Bytes

If you have a hard disk or an extended formatted double-sided disk, then put all 7 files in a partition or on that disk. With single-sided disks, though, format 3 disks and put files 1-4 on one disk labelled "Word Perfect", files 5 & 6 on the second disk labelled "PRINT/FEED", and put file 7 on the third disk labelled "FONT".

SETTING THE SYSTEM DEFAULTS

1. Run WP_START.PRG if you haven't done so. Choose (1) on the menu. If you run Word Perfect from a floppy drive. leave the defaults as they are. If, however, you run Word Perfect from a ram disk, **change both the system directory and the virtual directory to that ramdisk's letter.**

EXTENDED FORMAT DOUBLE-SIDED DISK

2. Press **PRINT** (Shift-F7), then press **Printer Control** (3) for the Printer Control menu. (The manual says **Printer Control** is (4). Here, the manual is wrong.)

3. Now follow the manual instructions, as they make sense from this point.

2 SINGLE-SIDED DRIVES
(2 Physical Devices, or 1 Physical and 1 Ramdisk)

1. With 2 physical drives, put the Word Perfect disk in Drive A and the Print/Feed disk in Drive B.

2. If you expanded your 520's memory to a megabyte, set up a 360K ramdisk as the primary drive;then copy the Word Perfect files into it.

3. When the alert box asks for either the PRINTER.PRT or FEED.PRT files, type in "B:\PRINTER.PRT" or "B:\FEED.PRT", then press [Return]. (With a ramdisk, type in "A:\PRINTER.PRT" and "A:\FEED.-PRT".)

4. When the alert box asks for the FONT.PRT file; take out the PRINT/FEED disk, put in the FONT disk, type "B(A):\FONT.PRT", and press [RETURN].

5. If you have installed Word Perfect on a ramdisk, format a 4th disk, labelled "WORKING COPY," and copy the ramdisk to it.

6. Don't forget to run WP_START.PRG on the Working Copy disk and set the system directory to Drive A: and the Virtual Directory to Drive C:.

1 SINGLE-SIDED DRIVE

1. When the alert box asks for a .PRT file, take out Word Perfect, put in that file's disk, then press [RETURN].

2. Select your printers and prepare for a lot of disk swaps. With one drive, each printer selection requires 6 disk swaps: 2 for SPRINTER.PRT, 2 for SFEED.PRT, and 2 for SFONT.PRT. Follow the prompts and stay patient. Initially, you may want to install 1 printer to reduce the frustration.

3. More bad news. Word Perfect uses the LEX.WP file to do spell checking; and together, they take up over 500k of disk space. Use a stand-alone speller program and an ASCII copy of your file instead.

WPREVIEW.ARC

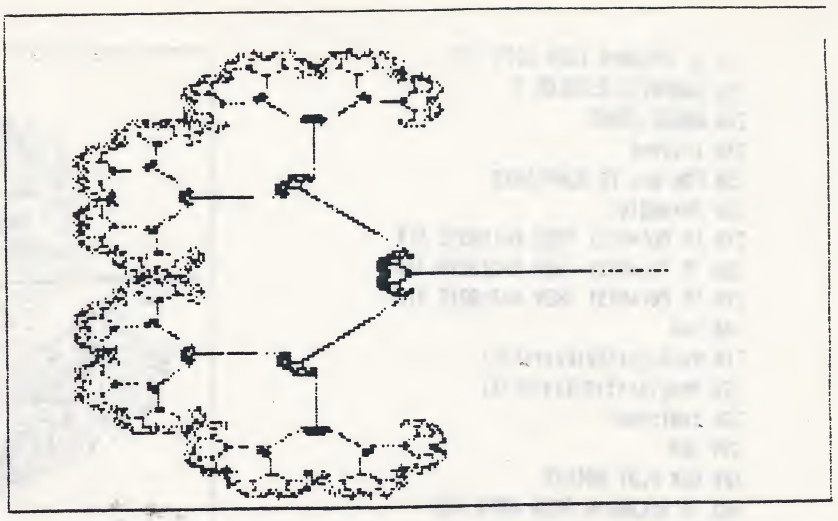
I couldn't get the full text of Milt Creighton's Word Perfect review from Current Notes in this issue, so I put it up in SIG 1 of the ST-BBS as WPREVIEW.ARC. If you own Word Perfect or want to, then download, de-arc, and read this article.

FRACTAL PICTURES
by Ron Miller

The Jan 88 BYTE Magazine has a very interesting article on compressing images using fractals. The following program was extracted from BYTE and modified to work on an Atari 800XL. A graphics mode 8 screen dump subroutine was added. For a detailed explanation of the program mathematics, refer to the BYTE article. However, you can have fun with this program because you only need change the data statements and plot scale factors to radically change the program output. You can see the FERN example which this program produced. Just changing lines 20-28 and 50-52 as indicated will turn out a fractal tree.

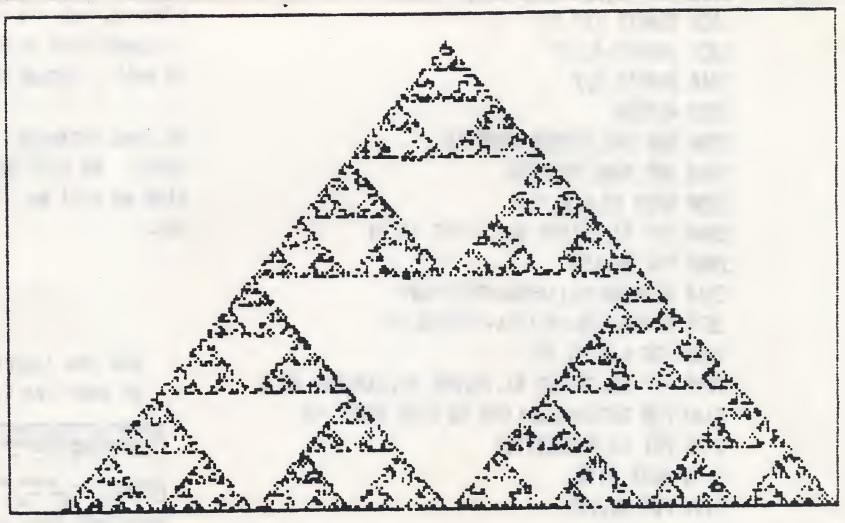
When the program finishes plotting, you can type GOTO 2000 to dump the graphics 8 screen memory to an Epson printer. Of course, you can "break" the program at any time and dump out the picture to the printer.

```
 1 REM FERN.BAS
 2 REM RR MILLER SDACE, 1 JAN 88
 4 REM REF BYTE MAG JAN 88
 5 REM IMAGE COMPRESSION
 6 REM PROGRAM WILL PLOT A FERN ON
 7 REM ATARI 800XL AND PRINT TO
 8 REM AN EPSON MX80
 9 REM
 10 PFLAG=1:REM 0=NO PLOT, 1=PLOT
 12 RFLAG=90:REM 0=NORMAL,90=ROTATION
 20 DATA 4
 22 DATA .85,.04,-.04,.85,0,1.6,.85
 24 DATA -.15,.28,.26,.24,0,.44,.07
 26 DATA .2,-.26,.23,.22,0,1.6,.07
 28 DATA 0,0,0,.16,0,0,.01
 30 NUMPOINTS=20000
 49 REM
 50 XSCALE=30:YSCALE=30
 52 XOFFSET=0:YOFFSET=75
 54 PXMAX=300:PYMAX=159
 56 PXMIN=0:PYMIN=0
 99 REM
 100 REM IFS PROG FROM BYTE
 110 DIM A(4),B(4),C(4),D(4)
 111 DIM E(4),F(4),P(4)
 112 FRAME=1000:SDUMP=2000
 120 READ M
 130 PT=0
 140 FOR J=1 TO M
 150 READ A1,B1,C1,D1,E1,F1,PK
 160 A(J)=A1:B(J)=B1:C(J)=C1
 170 D(J)=D1:E(J)=E1:F(J)=F1
 180 PT=PT+PK
 190 P(J)=PT
 200 NEXT J
```



TREE.BAS
Changing the following lines in the fern program will produce the tree shown here.

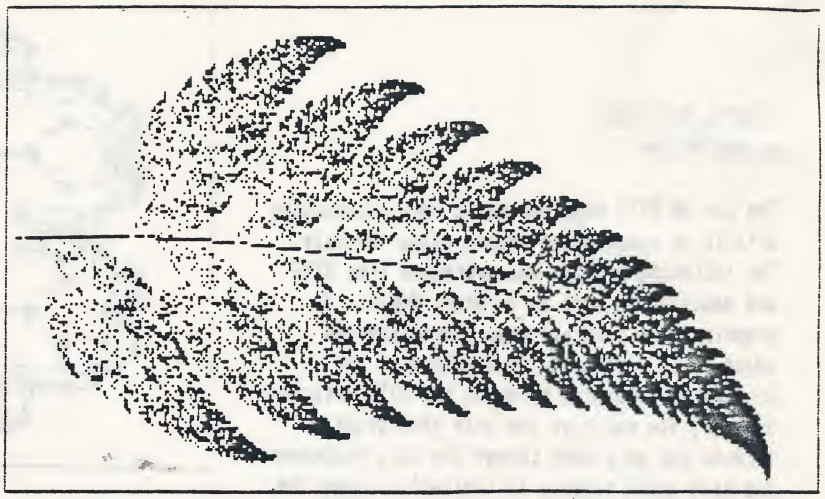
```
 10 PFLAG=1:REM 0=NO PLOT, 1=PLOT
 12 RFLAG=90:REM 0=NORMAL,90=ROTATION
 20 DATA 4
 22 DATA .42,.42,-.42,.42,0,.2,.4
 24 DATA .42,-.42,.42,.42,0,.2,.4
 26 DATA .1,0,0,.1,0,.2,.15
 28 DATA 0,0,0,.5,0,0,.05
 30 NUMPOINTS=20000
 49 REM
 50 XSCALE=600:YSCALE=300
 52 XOFFSET=30:YOFFSET=75
```



SIERPINSKI TRIANGLE.
Changing the following lines in the fern program will produce this geometric figure.

```
 10 PFLAG=1:REM 0=NO PLOT, 1=PLOT
 12 RFLAG=0:REM 0=NORMAL,90=ROTATION
 20 DATA 3
 22 DATA .5,0,0,.5,0,0,.34
 24 DATA .5,0,0,.5,1,0,.33
 26 DATA .5,0,0,.5,.5,.5,.34
 30 NUMPOINTS=20000
 49 REM
 50 XSCALE=150:YSCALE=150
 52 XOFFSET=0:YOFFSET=0
```

```
210 IF PFLAG=0 THEN GOTO 240
220 GRAPHICS 8:COLOR 3
230 GOSUB FRAME
240 X=0:Y=0
250 FOR N=1 TO NUMPOINTS
260 PK=RND(0)
270 IF PK<=P(1) THEN K=1:GOTO 310
280 IF PK<=P(2) THEN K=2:GOTO 310
290 IF PK<=P(3) THEN K=3:GOTO 310
300 K=4
310 NX=A(K)*X+B(K)*Y+E(K)
320 NY=C(K)*X+D(K)*Y+F(K)
330 X=NX:Y=NY
399 REM
400 REM PLOT POINTS
402 IF RFLAG=99 THEN GOTO 422
410 PX=X*XSCALE+XOFFSET
420 PY=Y*YSCALE+YOFFSET
421 GOTO 430
422 PX=Y*XSCALE+XOFFSET
423 PY=X*YSCALE+YOFFSET
430 IF PFLAG=0 THEN GOTO 490
440 IF PY>PYMAX THEN GOTO 490
450 IF PX>PXMAX THEN GOTO 490
460 IF PX<PXMIN THEN GOTO 490
470 IF PY<PYMIN THEN GOTO 490
480 PLOT PX,PY
490 NEXT N
500 IF PFLAG=1 THEN PRINT PX,PY
600 END
1000 REM FRAME IT
1010 PLOT 0,0:DRAWTO 319,0
1020 DRAWTO 319,159
1030 DRAWTO 0,159
1040 DRAWTO 0,0
1050 RETURN
2000 REM GR8 SCREEN DUMP TO
2010 REM MX80 PRINTER
2030 OPEN #3,8,0,"P:"
2040 PUT #3,27:PUT #3,51:PUT #3,24
2050 PUT #3,155
2060 DL=PEEK(561)*256+PEEK(560)
2070 SD=PEEK(DL+5)*256+PEEK(DL+4)
2080 FOR L=0 TO 39
2090 PUT #3,27:PUT #3,75:PUT #3,160:PUT #3,0
2100 FOR BYTE=6360+L+SD TO L+SD STEP -40
2110 PUT #3,PEEK(BYTE)
2120 NEXT BYTE
2130 PUT #3,155
2140 NEXT L
2150 PUT #3,155:PUT #3,155:PUT #3,155
2160 RETURN
```



FERN.BAS
Resulting GR8 screen dump of the fern generator. It is amazing that all the information needed to produce this fern is contained in the data in lines 22-28.

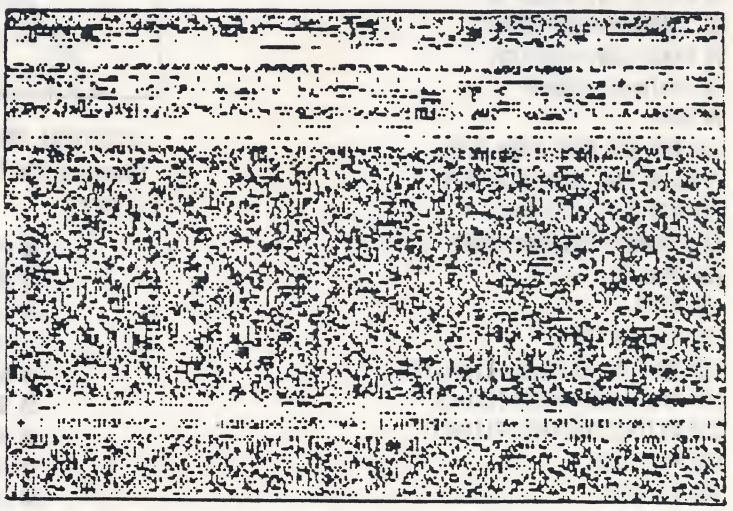
8 BIT CLUB NEWS
by Ron Miller VP

If all went well, our first meeting of the new year was held on 9 Jan. Hopefully, we got to talk about some goals for 1988. One goal worth pursuing is upgrading the material published in our newsletter. The 8 bit club should consider a goal of publishing at least one original piece of work each month. That makes our newsletter worth receiving and thus makes club membership worthwhile. Another goal might be to better organize our library, get rid of the junk programs, add a periodical guide and set some documentation standards for library programs. This would make it possible to sell programs by mail for a small fee.

Ah, but pursuing these goals would require some dedicated Atari computer users. We will see how 1988 goes. We have several options on the kind of club we will be in 1988. By the end of March, we will have figured that out.

WHAT IS IT?

Can you figure out this plot? It is something very dear to your heart. If you know, don't tell anybody. I know.



The Final Word

by

Mark Lawless

Hi, I'm Mark Lawless, the new President. I want to wish you all a happy new year. By way of introduction, I used to work for Atari as their Southern California sales rep. Now I run Computer Plus in Chula Vista, which I invite you all to stop by and check out. Maybe even buy something, too.

Anyway, this should be a great year for Atari owners, as they use the widest range of computers offered by one company, from the XE-GS computer disguised as a game system to the Mega ST, a serious business machine; maybe even the ABAQ, every researcher's dream, his own mainframe for which he doesn't have to stand in line.

Look this year for desktop publishing software to meet a broad range of needs; from Timeworks up to the DESKSET package from Atari and G.O. Graphics.

All these goodies mean nothing without **YOU**. Don't ruminate, don't stagnate, PARTICIPATE!!!!!!!!!!!!!

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EXP: JUN 88
[redacted]
SAN DIEGO, CA 92126

The **January 8-bit** meeting will be Thursday **January 7th**, at the Mira Mesa meeting facility, 6:30, and the **ST hands-on/beginners' SIG** will be on the same date and time, at the North Park Rec Center. The **regular ST meeting** will be on **January 18th**, at the North Park facility.